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ABSTRACT

This is one of a series of reports based on an ongoing reality test of systemic evaluation for instructional decision making. This feasibility study is being carried out by the Center for the Study of Evaluation with the Laboratory in School and Community Relations at a suburban Los Angeles high school (called Site A). Viewing a school as a cultural/ecological system, systemic evaluation is a set of principles to guide local development of processes to gather, organize and utilize information relevant to the needs and values of the system and its members. This paper details the development and testing of report formats using Site A Student Survey data and other student data in the existing district information system. The process involved collaboration with both school and district staff. Three preliminary report forms were developed: (1) Student-At-A-Glance; (2) Class-At-A-Glance; and (3) School-At-A-Glance. Several issues emerged during this project: (1) clinical versus social uses of information; (2) teachers as researchers and data analysts; (3) the power of numbers; (4) the quest for simplicity in complexity; and (5) the educative function in collaboration. Appendices include the Student Survey and results, workshop guidelines, district information system description, and annotated report formats. (BS)

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ED263114

MAKING SENSE OUT OF COMPREHENSIVE SCHOOL-BASED INFORMATION SYSTEMS

Exploring Analyses and Reporting Methods for School Staff

Kenneth A. Sirotnik and Leigh Burstein

INTRODUCTION

This is one of a series of reports based upon our ongoing reality test of the ideas embodied in our concept of systemic evaluation, the use of comprehensive data--data including but not limited to achievement outcomes--to inform school improvement efforts at all levels of the educational enterprise.

Over the first two years of this project, considerable conceptual and developmental work was accomplished that clarified the systemic evaluation idea and outlined the components and contents of comprehensive information systems useful at the building level. (See Burstein, 1983, 1984a-c; Sirotnik, 1984b; Sirotnik, Burstein & Thomas, 1983; and Sirotnik & Oakes, 1981a-b, 1982.) In a nutshell, this work included these contributions:

1. Developing an epistemological framework for using the knowledge afforded by a comprehensive information system in school renewal efforts.

2. Clarifying and integrating the basic research perspectives on contextual appraisal and multilevel design and analysis as adapted to the local school context.

3. Clarifying the distinctions between school and district perspectives on information systems and on the commonalities and differences in the information needs of elementary and secondary schools.

4. Elaborating the functions that comprehensive information systems serve within and between schools.

5. Identifying the likely contents (information domains) of a comprehensive information system for local school improvement.

6. Documenting the available sources of information routinely collected in schools.

TM 850 054

7. Reviewing the routine data collection activities of a sample of school districts at various stages of trying to use information systems.

8. Developing an extensive array of possible survey, interview and observational instruments designed to collect non-achievement data that schools might include in their information systems.

Currently, we are "reality-testing" these concepts by gaining first-hand knowledge about how to develop and sustain a school-based information system for ongoing school improvement efforts. Essentially, we studying the evolution and consequences of a comprehensive information system in a specific high school setting by considering, in context, questions such as:

- How can such systems accommodate the diverse array of information needs at classroom, school and district levels?
- How can the information data bank be organized to meet a variety of needs on a day-to-day basis?
- What is the optimal balance of hardware and software at building levels?
- How can the system augment and stimulate processes of curriculum inquiry and school renewal.

The school selected for this reality test, is a three-year senior high school of approximately 2,000 students located in a two-high school suburban district (K-12 enrollment, approximately 20,000 students) just outside of the greater Los Angeles area. The selection of this site is responsive to both national and local concerns about secondary school reform and reflects a setting where a beginning computer-based information system already exists. The school is attempting to address pressing school problems such as high absenteeism and drop-out rates and the need for curricular reform to better accommodate student diversity and prepare students for post-graduation activities. There is also considerable interest in exploring how the computerized information system can

routinely serve both improvement and day-to-day school activities. These conditions at the high school make it ideal for studying the development and use of a comprehensive information system in secondary school improvement efforts.

Our basic modus operandi has been (and continues to be) to work hand-in-hand with a selected group of teachers, administrators, and counselors to develop the means whereby the district's extant information system can be modified and used to meet the needs at the school level. Towards this end, we have also been in close working relationship with district staff, particularly in the data processing division, so that any changes or additions can be easily implemented into existing hardware and software configurations.

Cutting across these working relationships have been these specific activities:

1. Instituting the kinds of data collection activities that may be necessary to establish the system's comprehensiveness (e.g., pre-, current, and post-graduate student surveys, teachers and parent surveys, additional school-level data entry, etc.).

2. Organizing and structuring information in a way amenable to the manipulations and analyses required of the data (e.g., student files, teacher and parent files, aggregated files at class and school levels, etc).

3. Investigating the optimal balance of hardware, software and human resources required to make the system:

   a. Efficient with respect to data entry, updating and data transfer between district and school.

   b. Accessible and timely to school administrators, teachers and district-level staff.

4. Developing and utilizing the simplest, but most meaningful, methods of data manipulation and analyses. Examples of the kinds of possible activities are:

   a. Targeted subgroup demographic descriptions.

   b. Univariate distributions of system variables.

c. Bivariate and multivariate cross-tabulations.

d. Bivariate plots.

e. Trend analyses.

5. Developing and testing reporting formats that maximize both meaning and interpretability by the intended audiences.

6. Gathering of case-study material through observations and interviews (of and with school and district staff) regarding decision-making with respect to developing, implementing and applying information systems.

The focus of this report is directly on activity 5 (and, perforce, on activity 4 as well). This report is basically organized into two sections detailing both the process and product aspects of developing and testing report formats that teachers and administrators find interpretable, meaningful and useful in their day-to-day work settings. Again, it must be emphasized that this is a report of work in progress; significant data are yet to be obtained on many utility issues concerning the reporting techniques discussed below.

PROCESSES

As already noted, much of our developmental work takes place collaboratively with school staff. Specifically a core group of five teachers (representing different subject matters), the principal and assistant principal, and sometimes a counselor, constitutes the primary vehicle for project input from the school. We will refer to these representatives of the school and ourselves, collectively, as the "work group."

Involving as many of the other 85 staff members at the high school in all aspects of this project would, of course, be useful--both for facilitating the use of the information system as an intrinsic part of

the school's planning process as well as providing us with more feedback on the objectives of the project. However, involvement of staff at this level of magnitude is a costly, time-consuming, and difficult task. We have been fortunate, for example, to be able to gain the release time necessary just to involve five teachers in this effort. Thus we have, in part, sacrificed exploring the consequences of a full-scale developmental effort with total staff involvement for the expediency and efficiency of a concentrated, small group work effort. Nonetheless, we have met with the total staff on two occasions--period-by-period meetings and pupil-free, minimum half day--in order to explain the purposes, processes and outcomes of the project, enlist their cooperation in the survey data collection activities, and update and share with them interim reports and reporting techniques. Moreover, the entire staff will be involved in testing and feedback regarding the several reports discussed in the next section.

We have also been meeting regularly with district level staff on basically two accounts: (1) Updating and negotiating with the assistant superintendent regarding the progress of the project and the material and resource needs as they occur; and (2) Working closely with the director and senior programmer in Data Processing in order to both study their information system's contents and capabilities and facilitate their processing and use of the new information (e.g., student survey data) collected at the school level.

Much of the project process that has taken place at both district and building levels are detailed elsewhere (see 1984 Deliverable by Darr-Bremme) and need not be repeated here. We will now consider the

more specific work-related efforts relevant to generating the analyses and reports based on the information system.

Initial Activities and Student Survey

The whole rationale for, and development and implementation of, additional survey data to be added to the extant information system is specifically addressed elsewhere (see 1984 Deliverable by Burstein). However, to set the context for what follows, several activities need to be reviewed.

Initial meetings were held with the work group to both orient all participants to the general purposes and scope of the project and then to attend to the details of these activities:

1. Identifying the kinds of information teachers, counselors, and building administrators view to be useful for their own work (student-level, class-level, school-level and program-level decisions).

2. Identifying what specific problems (at any level) that the school staff would expect the information system to help them address.

3. Ascertaining the level of understanding of the computerized information currently available to school staff and the services that can be provided.

4. Reviewing the contents of the extant computerized information system.

5. Discussing the extent to which the system meets current and anticipated needs.

6. Determining what additional information may be necessary to augment the system.

7. Developing plans for collecting any additional information.

8. Identifying the information that will be useful for characterizing the functioning and impact of other ongoing programs (e.g., SIP projects).

Among other things, it was clear from these activities that the teachers were aware of only some of the information and reports that were possible

to get from the extant system, the procedures for obtaining reports were slow, not always responsive, and not always flexible enough for specific needs, and that there were much more data of potential use that were not already in the information system. It was decided, therefore, that student, teacher, and parent surveys should be designed and field tested in that order of priority given available time and resources.

The next meetings of the work group centered directly around the task of constructing the student survey. This work was facilitated by the already available compendium of potential student survey items, pertaining to school level and classroom level issues, developed by the project last year (see 1983 Deliverable, Sirotnik, Burstein, & Thomas). Through an interactive process of dialog, sorting, sifting, prioritizing, revising, subtracting irrelevant items, and adding new ones, the work group converged on the 185-question survey in Appendix A to this report. This survey was administered to students in May 1984, was computerized and scored by the district's Data Processing department, and was subsequentialy analyzed at UCLA for the purposes of this project.

Analyses and Reporting Formats

The next major series of work group meetings focused on the likely analyses and reporting formats using student survey data and other system data that might capture the interests and information needs of school staff.

Initially, a two-day retreat was conducted wherein the work group pursued an in-depth descriptive analysis of the survey results based upon marginal response percentages (these data are printed along side the items in Appendix A). In addition, a semi-structured agenda was followed designed to engage the group to begin considering the various

ways in which the analyses could be visually presented. (A copy of the outline followed by the work group for these discussions is included in Appendix B.)

In retrospect, we may have over-structured these initial meetings in the sense that much of what we suggested by way of decision-making levels and report contents subsequently appeared in trial report forms discussed in the next section. Nonetheless, the perspective we brought to the use of information was well-substantiated in our previous conceptual and practical work on this project and in work done on A Study of Schooling (Goodlad, 1983). Moreover, we had already become quite familiar with the high school through our association with it over several years, and we knew of the staff's and administration's concern with problems such as student apathy, high absenteeism, and concern over the appropriate foci of the school's curricular emphases.

For whatever reasons, then, the work group resonated to this initial foray into the possible uses of data and the several data displays. Moreover, in the next couple of half-day work group meetings, the teachers, administrators and CSE staff worked very collaboratively on detailing the analyses and reporting formats most likely to be used by the high school staff. In the first of these meetings, in fact, one teacher came in armed with a list of variables that she felt were important pieces of information to have about students assigned to any particular class.

This list eventually evolved into the first of three basic information report ideas generated by the work group, mocked up by CSE staff, and brought back to, and refined by, the work group. These reports came to be known as the

- Students-At-A-Glance
- Class-At-A-Glance
- School-At-A-Glance

reports. We will discuss the details of designing and producing these reports in the next section. Suffice it to note here that this process was an interative one: ideas were generated by the work group; they were "brought back to the shop" and developed further by CSE staff; and they were presented again to the group until a working consensus was reached by all involved.

Throughout this process, connections with district level staff were maintained in several ways: (1) As part of our project objectives, our intent was to develop reporting techniques that were compatible with district technological capabilities and that would, in fact, be used by the district to produce the several report forms noted above. Thus, work group efforts in terms of concepts and products were generally within the parameters set by district capabilities. (2) Given the developmental nature of the project, a certain amount of exploratory data analytic and graphic display work needed to be done at CSE using computing facilities at UCLA. Thus, we secured permission from the district to receive and use copies of their basic information files used to construct their entire information system. (The district's system and files are briefly described in the outline contained in Appendix C.) (3) Several meetings with district staff were held primarily to maintain good will, reaffirm our commitments to the project and the high school-university collaborative endeavor, keep open channels of communication, and update staff on the progress of the project and the increasing commitments of the principal and teachers to actually using the evolving

reporting techniques. In one of these meetings (including CSE staff, the assistant superintendent, the director of data processing, and the principal), the district commitment was secured for the production of student and class reports for all teachers beginning the second semester of the 1984-85 school year.

Finally, once the trial information reports were developed and we were certain that the district would produce them for all teachers, a total staff meeting was planned and held in November 1984. The goals of this meeting were to reiterate the purposes and scope of the project, share the progress to date (including student survey results and the several report forms planned for dissemination), gain faculty-wide input to the process so far, inform staff of upcoming next-steps (e.g., possible teacher and parent surveys, second round of student surveying), and enlist more teacher volunteers to join the group. Particularly noteworthy, this meeting was planned and conducted mostly by the five teachers involved in the work group. Based upon input received from this meeting and the report forms generated by the work group, the district is currently developing the software necessary to produce the reports within the time frame noted above.

This process description, although brief, should be sufficient to set the stage for what follows, namely, a discussion of the actual analyses and tabulations of data determined by the work group to be potentially useful at the several levels of decision-making within the school. We will then conclude this report with a brief discussion of emerging issues and an outline of the final steps with respect to this segment of the project.

PRODUCTS

There is nothing inherent in information per se that automatically guarantees its usefulness. Even in the case of information generated at a conceptual level of need--for example, the student survey produced by the work group--judging the utility of data actually obtained is a whole new "ballgame." What seemed obviously interesting before (in "theory") is not always of obvious use when the data are actually at hand. This was one of the primary reasons for having teachers and administrators face the tasks of data analyst and report designer.

The details of how work group members attended and reacted to these tasks are extraordinarily intersting. We have only sketched out the structure of this in the process discussion above. Moreover, we will present mostly the outcomes of these deliberations next, adding only a few process descriptions as necessary. In the subsequent section, we will return to these process details only to support some emerging issues that we think deserve special mention. Again, readers interested in a more in-depth, process tracing should consult the 1984 Deliverable by Dorr-Bremme.

As noted previously, three types of data displays were generated by the work group: student-, class-, and school-at-a-glance reports. We will discuss each of these reports in terms of their evolution, contents and anticipated uses. (Information pertaining to their actual use will be collected in the 1985 project year.)

Student-At-A-Glance

Of the various levels at which information could be of use to school staff, teachers seemed to gravitate almost immediately to uses at the individual student level, particularly as that information might

impact upon their classroom instruction. Early on in the project, an interesting "tension" emerged between teachers' predispositions to relate, on the one hand, to individually-focused, diagnostic data and, on the other hand, to group or organizationally focused data (often aggregates of individual data). We have labelled these two perspectives regarding the use of information the clinical and the social orientations, respectively. The clinical-social theme is an important one in information use and we will return to it in the next section. Suffice it to say here that all teachers had no problems relating to the clinical perspective on information use--the main issues centered around what data to select and how to array them in a visually satisfying manner.

The work group already had a start on discussing these issues based upon a district version of a student information report (Exhibit 1) and also a preliminary outline submitted by one of the teachers. Interestingly, not all the teachers were even aware of the availability of the district report. Nevertheless, all teachers reacted somewhat negatively towards the report in terms of unclear variable definitions, a densely packed, difficult to read format, and both too much information and not always the most useful information was included.

Exhibit 2 shows the final test version of the student-at-a-glance report, designed to provide teachers with a student-by-student roster for each of their classes, with the information on each student given by the column headings and defined by the keys at the bottom of the report. This report was based upon a merged file created from five separate district files, including the student survey data. This merged file was then used as input to the report generator subprogram of the SPSS system set up to produce this particular report format. The district is

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EXHIBIT 1

District's Student Report

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LNARF 082140  SCH:33 GRADE:10 SP:    EC:E2 ED: 9/12/83 DOB: 6/25/68 SEX:G TCH:
NAME:ADAY. MADYLENE MARY        PO BOX:      EMRG1:BONNIE GASS      PH:805-526-349
ADDR: 1555- AGNEW ST             #     -     EMRG2:BONNIE NELSON    PH:805-522-326
CITY:SIMI VALLEY      ZIP:93065 DOCTR:DRUMMOND         PH:805-526-5240 RG:  /  /
PHONE:805-527-9188    BPL:CINCINNATI, O        LSCH:WM GREEN, LAWNDALE
FR:EUGENE O              OC:MILLWRIGHT         EMP:GENERAL MOTORS, VN
MR:MADYLENE              OC:                   EMP:
FP:213-997-5111 EXT:  40 MP:    -   -     EXT:      RES STATUS:BOTH PARENTS
LOCKER:          SIBLINGS: 1 PLACE: 2  ETHNICITY:4  GRID: 20    PSAT Q      V
G.P.A.:2.25  RANK: 355 OF  747  CTBS % MATH:    READ:    LANG:    SAT Q      V
A.F.D.C.:NO  HANDICAP:                          G.A.T.E.:NO  BILING:NO  SP ED:NO
ID CARD:NO   SCH RULES:NO  SMOKE PERM:NO  AUTO PERM:NO  OFF CAMP:NO  YR BOOK:YE
WORK EXP:NO  FREE PER:               LETTER SENT:                        CMS  1
VISITS: C.G.C.:     EUREKA:     LIBRARY:      HEALTH OFF:     PRINCIPAL:     PSYC:
A.S.B.:YES ATHLETICS:NO  OTHER ACTIVITY:NO  GROUPS:59
            R E F E R R A L  I N F O R M A T I O N  PAGE <01>
REF NO    PERSON MAKING REFERRAL      DATE   PERIOD       PERSON REFERRED TO
 0001  GUTHRIE                      09/14/82   05      BLACKBURN
     TYPE:  19 TRUANCY TARDIES                DISP:  27 PARENT CONFERNCE PHONE
 0002  HIRD                        09/15/82   01      FISCHER
     TYPE:  15 SMOKING                        DISP:  25 SCHOOL SUSPENSION
                                      /  /
     TYPE:                                    DISP:
```

SECTION:
TEACHER:

EXHIBIT 2

STUDENTS-AT-A-GLANCE

PREPARED ON 10 OCT 84

STUDENT NUMBER	STUDENT NAME	GRADE	CM SCHOOL	ED EXPECT	DAYS ABS	CTBS READ	CTBS LANG	CTBS MATH	GPA	ACAD SC	HOMEWORK	JOB	ACTIVITY	LIKE SCH
C149043	ADAMS, WILLIAM B	12	.	4Y	.	.	.	.	1.1	H	+	P	3	+
C249052	ANDERSON, JOHN I	.	.	HS	.	.	.	.	.	M	+	F	0	+
C341950	ATWOOD, DANIEL K	12	6	HS	57	33	14	3	1.9	M	-	H	0	-
C449274	BAGLEY, LOIS J	12	3	4Y	35	62	84	83	2.6	M	0	H	2	+
C542468	BAKER, MARY M	12	3	2Y	17	34	54	3	1.8	H	+	N	2	+
C649341	BUTLER, JOYCE	12	3	2Y	18	49	67	0	2.7	M	+	H	2	+
C743686	CALDWELL, THOMAS C	12	4	2Y	11	80	88	80	1.6	M	C	N	0	+
C849048	CARTER, MATHEW	12	6	2Y	23	68	72	68	2.9	M	+	N	4	+
C942771	CLARK, LARRY P	12	6	HS	30	.	.	3	1.5	H	.	P	0	-
1C49050	COOK, CHERYL	11	6	?	13	83	86	68	3.0	M	0	P	1	-
1143177	COOPER, JANE L	12	6	.	55	36	26	35	1.4	.	.	.	.	.
1244197	CURTIS, EDWARD N	12	6	4Y	27	19	7	7	2.1	M	+	F	3	+
1349266	DAVIS, LYNN	12	1	4Y	7	66	84	95	3.8	H	+	P	3	+
1449288	DUNCAN, JOHN	12	2	4Y	8	87	94	83	3.6	H	+	N	3	+
1541828	EATON, TIMOTHY	12	6	2Y	37	10	12	2	2.4	M	0	F	0	+
1649291	EMERSON, DOROTHY A	12	7	2Y	11	45	62	40	2.6	M	-	F	1	+
1749069	EVANS, ROBIN S	12	4	2Y	31	41	20	10	2.2	M	+	P	0	+
1849294	FARMER, DAVID R	12	4	HS	35	.	.	.	2.1	M	+	N	0	-
1949295	FELDMAN, ROBERT	12	1	2Y	10	63	64	64	1.7	M	-	F	1	0
2C49301	FINK, AARON S	12	1	4Y	6	86	96	99	4.1	H	+	P	2	+
2149303	HARRIS, CURLEY M	12	6	2Y	35	62	40	83	2.4	M	+	P	2	+
2249306	HAYES, CYNTHIA	12	4	2Y	17	1	3	.	2.5	M	-	H	0	-
2349167	KAPLAN, HAROLD D	12	5	2Y	27	61	8	32	2.5	M	0	H	0	+
2448395	LEWIS, ANTHONY E	.	3	.	43	50	35	35	.	.	.	.	.	.
2549168	MARCUS, STANLEY	12	4	4Y	10	83	77	92	3.2	H	+	N	3	+
2649309	MC ARTHUR, EUGENE A	12	6	4Y	35	80	70	60	2.8	M	+	H	2	+
2749172	MILLER, ELIZABETH	12	3	2Y	46	23	30	28	1.6	M	+	N	0	0
2843336	MCCBE, OSCAR J	12	2	2Y	32	78	50	3	2.9	M	+	F	0	-
2949129	PACE, DONALD W	12	2	2Y	30	16	28	45	1.6	M	-	N	1	0
3042520	RANDLE, ANN	12	6	4Y	47	.	.	.	2.1	M	+	P	0	0
3142793	ROBERTSON, SHEILA	12	6	4Y	30	99	74	43	2.5	M	+	P	0	+
3243660	ROSS, RICHARD M	12	5	HS	45	.	.	.	.8	M	-	P	.	0
3343179	SANDERS, JOAN N	12	8	.	118	8	0	37	1.1	.	.	P	0	.
3449323	SCOTT, MARION J	12	5	2Y	27	47	49	31	2.1	M	+	H	0	+
3549109	SILVERMAN, ARTHUR	12	4	HS	10	61	74	26	1.9	M	-	N	0	+
3641481	SNYDER, EVELYN G	12	5	4Y	15	42	17	23	1.3	H	+	P	3	+
3744147	STERN, BRUCE D	12	6	2Y	56	54	73	40	2.9	H	+	P	2	-
3849262	STUART, DONNA	12	1	2Y	31	92	52	95	3.1	H	+	P	0	+
3949329	THOMPSON, WENDY L	12	8	2Y	27	63	50	60	3.0	M	+	H	1	-
4043580	WALKER, VICKI S	12	4	2Y	25	12	12	23	2.2	M	-	P	1	-

. = MISSING

CM SCHOOL: CAREER MAGNET SCHOOL.
1=PHYSICAL SCIENCE AND TECHNOLOGY
2=INTERNATIONAL RELATIONS & POLITICAL SCIENCE
3=BUSINESS 4=INDUSTRY 5=PERFORMING VISUAL AND FINE ARTS
6=MENTAL, PHYSICAL & BIOLOGICAL SCIENCES 7=LIBERAL ARTS
8=ENTRY AND ESSENTIALS 9=DONT KNOW

ED EXPECT: EDUCATIONAL EXPECTATION.
QU=QUIT HIGH SCHOOL HS=FINISH HIGH SCHOOL
2Y=GO TO TRADE/TECHNIC SCHOOL OR JUNIOR COLLEGE
4Y=GO TO 4-YEAR UNIVERSITY ?=DONT KNOW

DAYS ABS: NUMBER OF FULL DAYS ABSENT.

CTBS TEST RESULTS ARE REPORTED IN PERCENTILE RANK.

ACAD SC: ACADEMIC SELF CONCEPT. H=HIGH M=MEDIUM L=LOW

HOMEWORK: +=ALL/MOST OF THE TIME 0=SOMETIME -=SELDOM/NEVER

JOB: F=FULLTIME(30+) H=HALFTIME(20-30) P=PARTTIME(10-20) N=NONE

ACTIVITY: NUMBER OF EXTRACURRICULAR ACTIVITIES(1-5).

LIKE SCH: LIKE OF SCHOOL. +=LIKE 0=NOT SURE -=DISLIKE

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currently writing its own software to essentially duplicate this report format given any specified class section number.

Of the thirteen pieces of information, finally selected by the work group, seven come from the extant district information system and six are based upon responses to the student survey. (Appendix D contains annotated copies of reports to show which survey items were used.) It is interesting to note that one of the most influential criterion for the selection of information had nothing to do with content. To be sure, the group struggled with different opinions regarding what to include; for example, survey items like #19, #21, #63, and #76 (see Appendix A) were considered along the way but were eventually eliminated for lack of sufficient consensus regarding their utility. Yet, the most restrictive criterion for selection was this: All teachers were agreed that all the information for classes as large as forty students should fit on a single 8 1/2 x 11 page, suitable to fit in their class notebooks, and not overly cluttered or densely packed with data.

At first blush, this may seem to be a rather trivial issue to get worked up about. Nevertheless, it was a critical one, and one that we will discuss further. Other issues emerging in the discussions around student-level data concerned the misuse and abuse of information, confidentiality, and creating self-fulfilling prophecies about students. These issues will also be discussed in the next section.

Finally, we note some of the constructive uses <u>anticipated</u> by the teachers for the student-at-a-glance report. For example, some of the teachers are currently experimenting with alternative forms of grouping practices to handle the wide range of individual ability differences in their classrooms. Using cooperative learning techniques, teachers need

to form heterogeneous ability groups. The information in the student report (particularly GPA and CTBS data) provide the teachers with an immediate basis for trial group assignments. As another example, the information inherent in the homework question and the questions regarding after school work and extracurricular activities may provide teachers with some basis for dealing with students having trouble or complying with homework assignments. Again, we will be interviewing and surveying all teachers next year regarding what use (if any) they made of these data.

Class-At-A-Glance

Teachers generally agreed that once the student-at-a-glance report was available, they could get a pretty good "feeling" for their class by "eyeballing" the arrays of data in each column. However, there were additional data from the student survey, which were not necessary to see student-by-student, but were still useful when aggregated at the class level. This information generally pertained to student perceptions of classroom teaching and learning and preferences for various subject matters and instructional practices.

Again, unanimity among the work group members was not reached regarding inclusion/exclusion of data for this report; nevertheless a working consensus was achieved on three basic sets of items: student preferences for different instructional grouping configurations, student preferences for various kinds of instructional activities, and the degree to which students say they like the particular subject matter of the class (e.g., mathematics).

Instead of the work group determining the report format for this report, the CSE staff used this opportunity to get teacher reactions to several different report formats ranging from straightforward tabular

presentation to "state-of-the-art" graphics using the SAS statistical system.

Exhibits 3 - 5 present the range of data displays offered to the work group for their consideration. Exhibit 3 shows the class-at-a-glance data numerically with no graphics whatsoever. Exhibits 4a - 4b show the same data using the SAS graphics package and special plotter. Three pages were required since these graphs could not be produced in reduced form on a single page. Since each teacher would get different results for each class, it made no sense to physically cut and paste and reduce these figures into a single page format. (Apparently, sophisticated graphics capabilities on a main frame computer are much less tractable than those on a microcomputer, e.g., MacIntosh. See 1984 Deliverable by Ender.) Finally, Exhibit 5 presents a compromise solution using cruder graphics (ordinarily available print characters), but in a compact, easy to read format.

Although they had no trouble interpreting the results, teachers immediately rejected the format in Exhibit 3. And, although they were moderately impressed with the pretty graphics in Exhibits 4a-4c, they were once again adamantly against receiving three sheets of paper containing information that could fit on one page. Moreover, they actually liked the simplicity of the cruder graphics in Exhibit 5--thus their decision was quick and easy to make.

During these discussions, issues again emerged such as the clinical-social orientations regarding the importance and use of information. Aggregating data at the class level also seemed to provoke another issue, namely, the reaction to data as if they were inherently directive. For example, does the information in the sample class report "tell" the teacher <u>not</u> to assign research projects to his/her class because it is

EXHIBIT 3

CLASS AT A GLANCE

Date

Section No: No. Enrolled Sutdents:

No. Students taking Survey:

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
93. Liking of mathmatics	0	50	46	2	2

INSTRUCTIONAL GROUPING REFERENCES

Listed below are four ways students can work in a classroom. Choose the letter on the answer sheet that tells how much you like or would like to work in each way, even if you don't do so now.

	Like	Undecided	Dislike
106. Alone by myself	57	6	33
107. With the whole class	49	17	34
108. With a small group of students, who know as much as I do	69	11	34
109. With a small group of students, some who know less, some who know as much, and some who know more than I do	63	9	29

STUDENT ACTIVITY PREFERENCES

Listed below are some things that you might do in a class. Choose the letter on the answer sheet that tells how much you like or would like to do each thing, even if you don't do it in class.

	Like	Undecided	Dislike
123. Listen to the teacher	57	20	23
124. Go on field trips	77	9	14
125. Do research and write reports, stories, or poems	26	9	66
126. Listen to student reports	33	20	43
127. Listen to speakers who come to class	74	6	20
128. Have class discussions	74	11	14
129. Build or draw things	46	29	26
130. Do problems or write answers to questions	40	26	34
131. Take tests or quizzes	31	17	51
132. Make films or recordings	40	23	33
133. Act things out	31	23	46
134. Read for fun or interest	54	26	20
135. Read for information	51	17	31
136. Interview people	33	29	34
137. Do projects or experiments that are already planned	51	20	29
138. Do projects or experiments that I plan	43	29	29

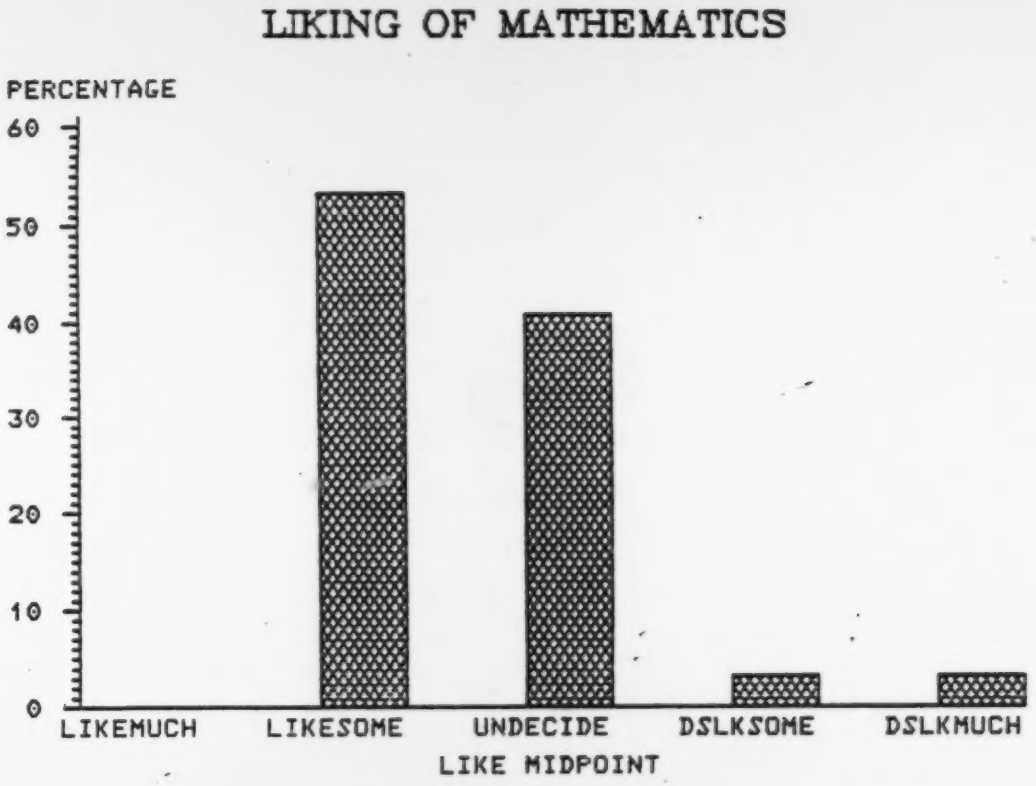

LIKING OF MATHEMATICS
PERCENTAGE
60
50
40
30
20
10
0
LIKEMUCH
LIKESOME
UNDECIDE
DSLKSOME
DSLKMUCH
LIKE MIDPOINT

EXHIBIT 4a

INSTRUCTIONAL GROUPING PREFERENCES

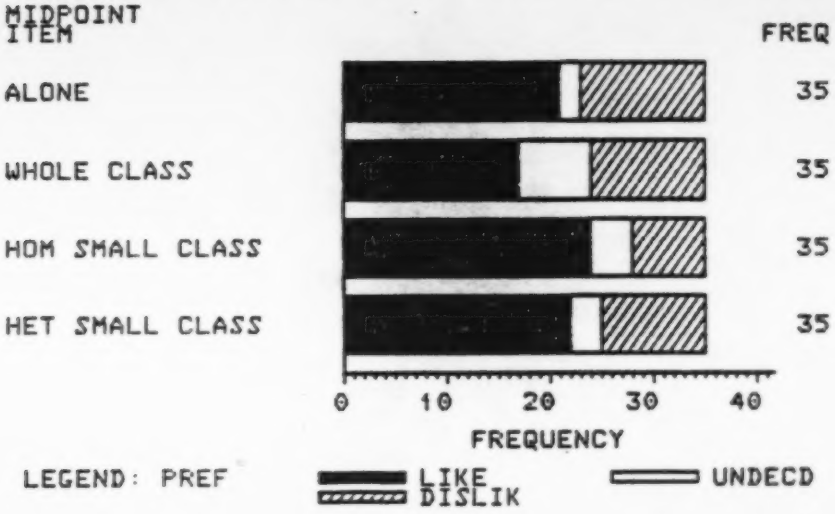


EXHIBIT 4b

STUDENT ACTIVITY PREFERENCES

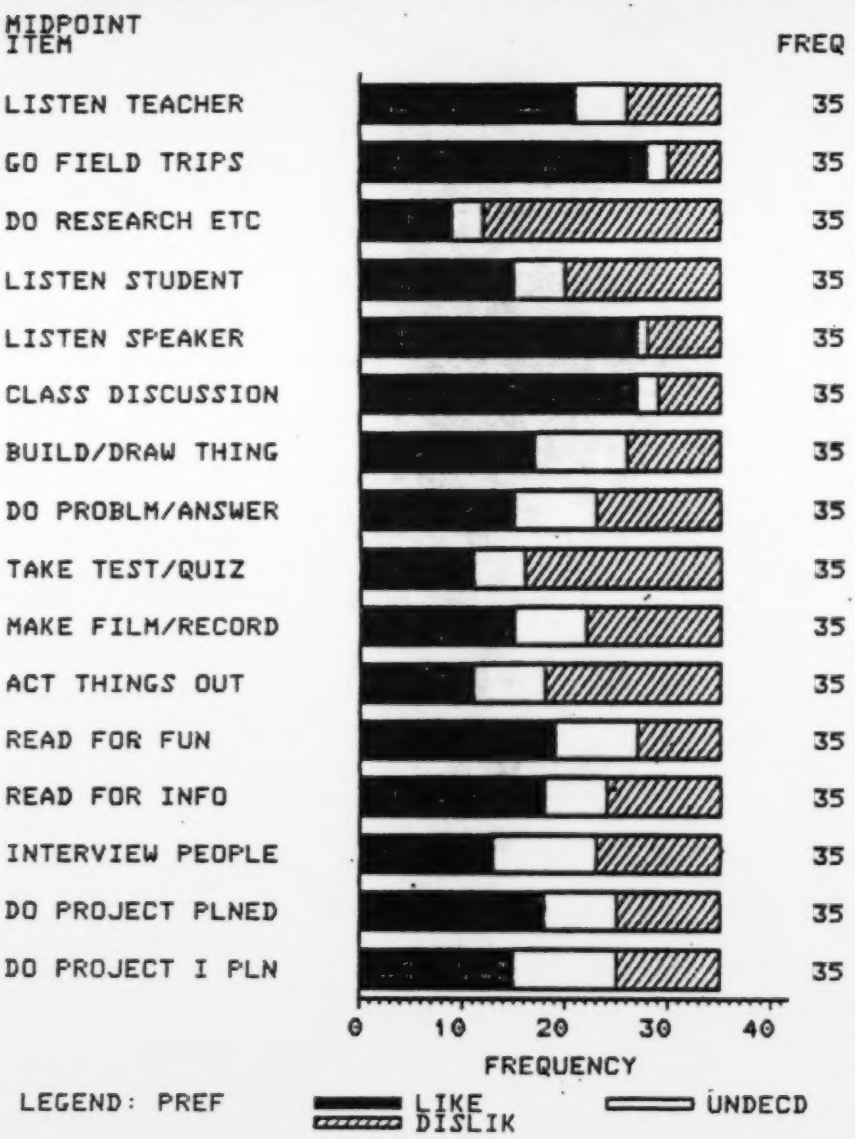


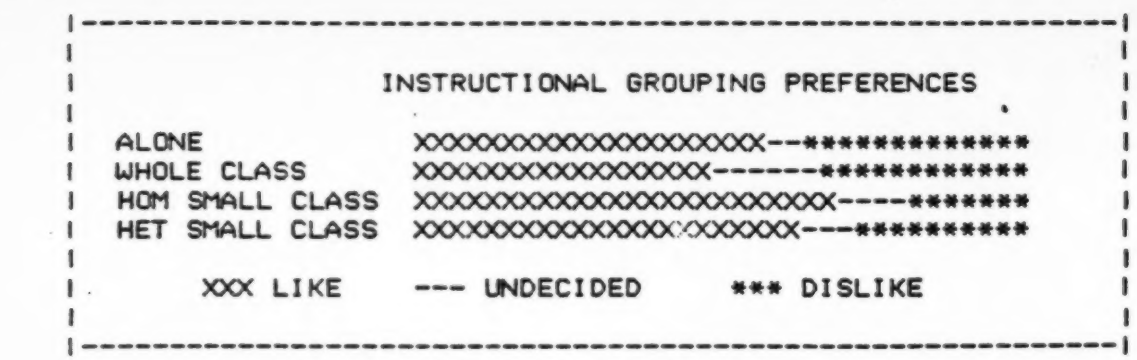
EXHIBIT 4c

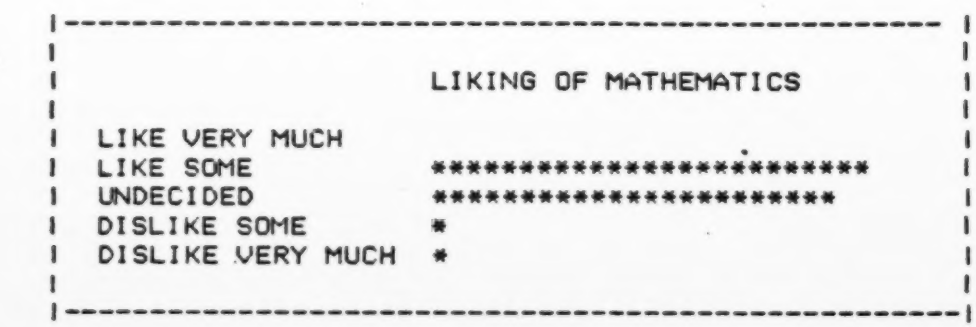
EXHIBIT 5

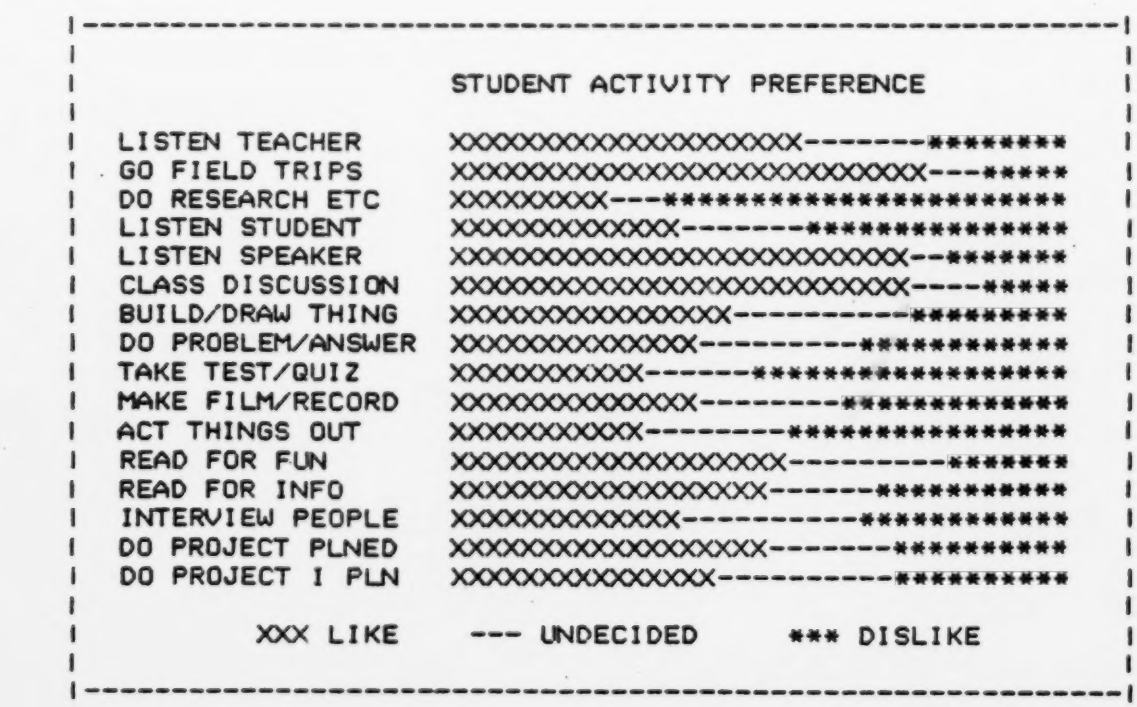
CLASS AT A GLANCE

FALL 84

SECTION NO: XXXX
NO. ENROLLED STUDENTS: 35
NO. STUDENTS TAKING SURVEY: 35







the least liked class activity; or does the information provide a context for teachers in dealing with student affect, dispositions, etc., when, in fact, research projects are assigned? We will return to this and other issues shortly.

School-At-A-Glance

Up to this point, information was treated in the context of specific students in specific classes, either as individual data points or as aggregated at the class level. In moving to the school level, a significant shift in orientation along the clinical to social data use continuum is required; all teachers must now become involved in the same set of data from the perspective of organizational needs, decision-making, planning, evaluation, and so forth.

Interestingly, it was not until this level of information use was considered that administrators became noticeably more involved and teachers become more passive in terms of inclusion-exclusion decisions. Perhaps this phenomenon was due, in part, to other reasons (e.g., the way CSE staff structured work group meetings) besides the obvious ones of traditional role and organizational structures, at least the ones that usually get played out in practice--teachers responsible for what goes on behind the classroom door; principals responsible for schooling issues that have visible impact at the building level.

In any case, the school-at-a-glance report that eventually emerged (see Exhibits 6a - d) was largely influenced by the principal's interest in what he saw as the several main issues, addressed by data in the student survey, that were of immediate concern to the high school. These issues were:

1. What are the curricular goal emphases at the high school; what should they be?

EXHIBIT 6a

Student Survey Results
May, 1984

School-At-A-Glance

FUNCTIONS OF SCHOOLING

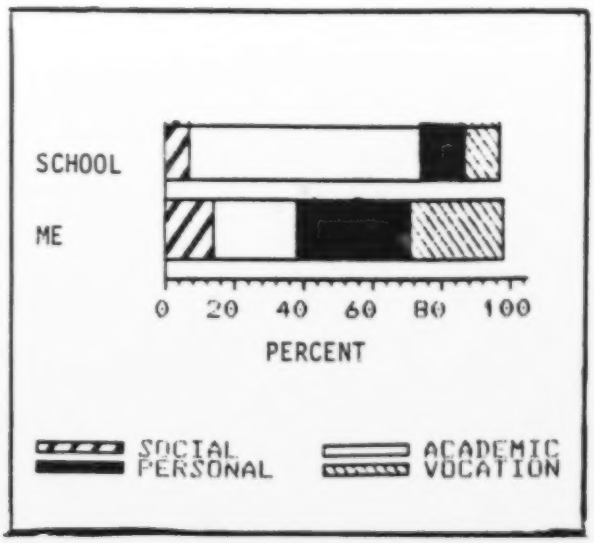
Social Development
Instruction that helps students learn to get along with others, prepares students for social and civic responsibility, develops students' awareness and appreciation of our own and other cultures.

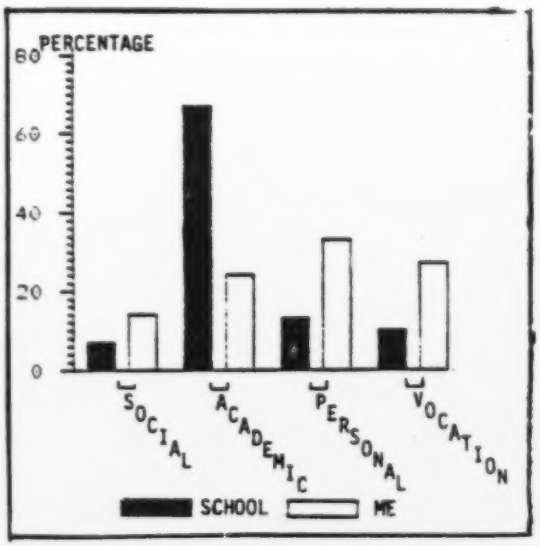
Intellectual (Academic) Development
Instruction in basic skills in mathematics, reading, and written and verbal communication and in critical thinking and problem solving abilities.

Personal Development
Instruction that builds self-confidence, self-discipline, creativity, and the ability to think independently.

Vocational Development
Instruction that prepares students for employment, developing the skills necessary for getting a job, developing an awareness about career choices and alternatives.

Some Student Perceptions:
(see survey questions 90 & 91; note wording -- students could only choose one)

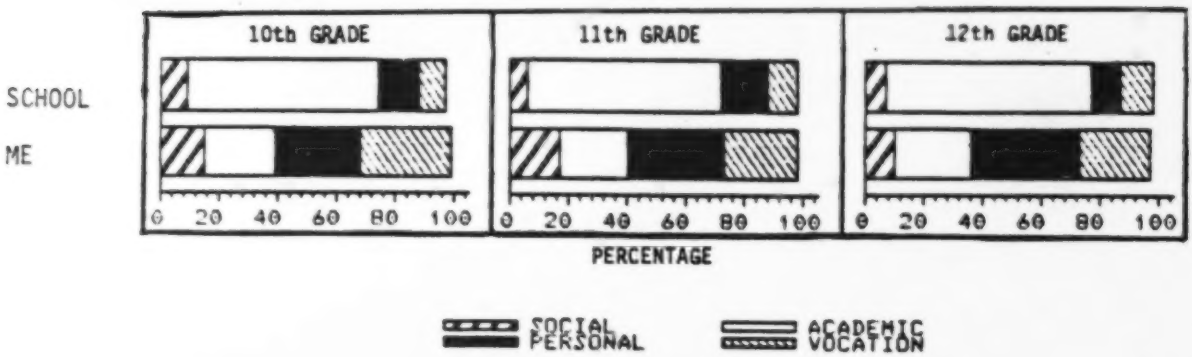




Students perceive the school as emphasizing mainly the academic function; from the students' point of view, however, they tend to spread the emphasis around to the other goal areas, particularly the personal and vocational functions.

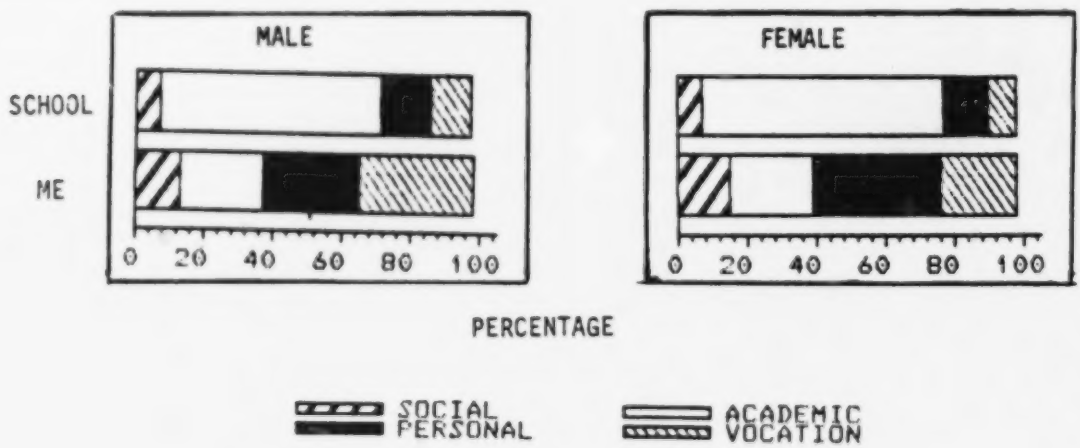
Congruency:
35% of the students place the most importance on the same goal area they see the school as emphaasizing. To put it the opposite way, nearly 2/3 of the students would prefer a different goal emphasis than the one they perceive.

DO THESE PERCEPTIONS CHANGE DEPENDING UPON GRADE LEVEL?



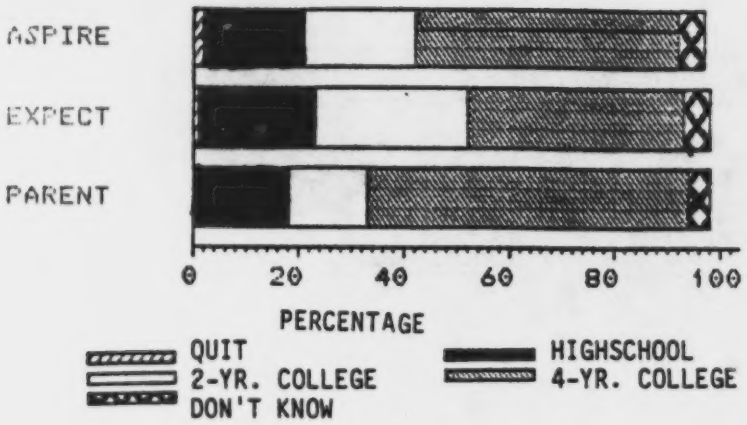
The trends, if any, are slight. Emphasis on Personal Development increases across grades (29% of 10th graders, 33% of 11th Graders and 38% of 12th graders) while emphasis on Social Development (16% in 10th grade, 17% in 11th grade, 11% in 12th grade) and Vocational Development (31% in 10th grade, 26% in 11th grade, 25% in 12th grade) decreases.

DO THESE PERCEPTION CHANGES DEPEND UPON SEX?

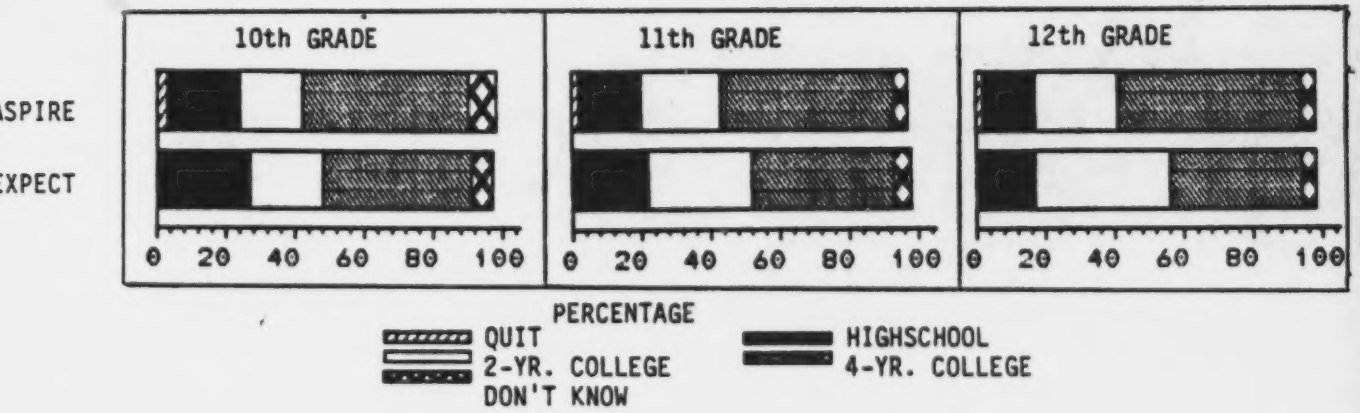


Boys place greater emphasis on vocational development than girls (33% of boys versus 22% of the girls) while girls place greater emphasis on Personal Development than boys (37% of girls versus 29% of boys).

STUDENT ASPIRATIONS AND EXPECTATIONS
(Survey questions 6, 7, and 8)



MAIN TREND: Half of the students would like to go to a 4 year college or university in contrast with only 22% aspiring to attend a 2-year college. Their expectations, however, drop by about ten percent; 40% expect to go to university and 30% expect to go to vocational school/junior college. Students perceive their parents' attitudes to be more in line with students' aspirations than with students' expectations.



The general trend in aspirations is toward more education (both 2 year and 4 year college) across grades while the trend in expectations is toward less four-year college and more two-year college. While the percentage of students aspiring to attend a four-year college increases slightly across grades (from 48% at 10th grade to 53% at 12th grade), the percentage of students that expect to attend a four-year college decrease slightly (44% at 10th grade to 38% at 12th grade). The percentage of students expecting to attend a trade school or junior college increases substantially across grades (22% in 10th grade, 30% in 11th grade, and 39% in 12th grade).

NOTE: According to district records, only 5-7% of all graduating seniors go on to a 4-year college.

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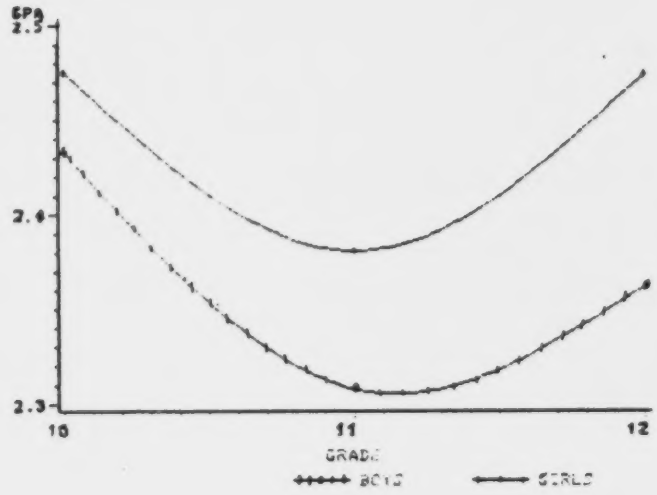
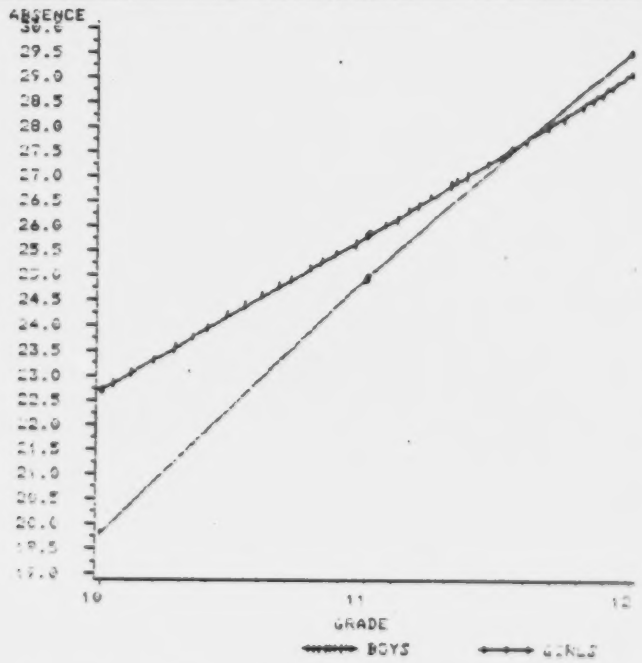
GPA: Averages for Males and Females at Each Grade Level



Two slight tendencies are apparent: (1) Boys show lower GPA averages than girls, and (2) GPA goes down in the 11th grade.

DAYS ABSENT: Averages for Males and Females at Each Grade Level



Several trends are noteworthy: (1) Boys are generally absent more days than girls; (2) Absences increase almost linearly from the 10th through the 12th grades (roughly 3 to 4 more days absent in each grade level); (3) The increase in days absent over grade levels is more exaggerated for girls than boys (in fact, girls slightly surpass boys in the 12th grade).

2. What do students and parents want; and how do these perceptions and expectations jibe with what students actually do upon graduation?

3. What are the implications of these issues for the Career Magnet Program and student comfort in selecting a career path in this program?

Basically, the data reported in Exhibit 6 begins to explore the information relevant to the first two issues by bringing to bear relevant student survey results along with several other variables from the district's information system. It should be emphasized that although it was certainly the intent of our project to capture data relevant to the school in these reports, we were also concerned with analysis and reporting issues such as:

- the optimal balance of descriptive text and graphics.
- the relative appeal of one graphical mode over another.
- easy to interpret graphical techniques for representing the relationships between two or more variables.
- the amount of information to be contained in any one report.

To be sure, many graphical techniques are available and none that we have used thus far are particularly novel. Nonetheless, knowing about things like bar charts, histograms, pie charts, frequency polygons, and so forth is one thing, using them in certain contexts for certain purposes to be understood and used in those contexts is quite another thing. It is quite clear in the literature how well known graphical techniques can be totally misused, misinterpreted, and/or irrelevant to the purposes intended (see, for example, discussions in Horwitz & Ferleger, 1980; Huff, 1954; and Tufte, 1983).

In a particularly enlightening and creative book on graphical methods, Tufte (1983, p. 51) outlines what he considers to be generic principles underlying quality visual presentation of quantitative data.

"Grapical excellence

. . . is the well-designed presentation of interesting data--a matter of substance, of statistics, and of design.

. . . consists of complex ideas communicated with clarity, precision, and efficiency.

. . . is that which gives to the viewer the greatest number of ideas in the shortest time with the least ink in the smallest space.

. . . is nearly always multivariate.

. . . requires telling the truth about the data."

In order to achieve these principals in practice, "graphical displays should

- show the data
- induce the viewer to think about the substance rather than about methodology, graphic design, the technology of graphic production, or something else
- avoid distorting what the data have to say
- present many numbers in a small space
- make large data sets coherent
- encourage the eye to compare different pieces of data
- reveal the data at several levels of detail, from a broad overview to the fine structure
- serve a reasonably clear purpose: description, exploration, tabulation, or decoration
- be closely intergrated with the statistical and verbal descriptions of a data set." (p. 15)

Although we have not been particularly creative with daring new visual displays, we have tried to incorporate many of these principles while at the same time being sensitive to the needs and concerns expressed by administrators and teachers in the work groups. Thus, the reports displayed in Exhibit 6a - d reflect deliberate attempts to:

1. Include just enough narrative to explain the major trends embedded in the graph(s) and include only the most relevant numerical results upon which the graph(s) was(were) based. (All teachers were given the raw data for reference purposes in the form of the student survey in Appendix A.)

2. Experiment with different graphical techniques that may represent the same data but highlight different emphases. The two graphs in Exhibit 6a, for example, are based on the same survey questions but call attention to different comparisons. The first graph highlights relative emphases on the schooling functions (social, intellectual, personal, vocational), while the second highlights the difference between perspectives (schools' emphasis vs. student's preference).

3. Organize visual displays thematically, with one theme per page, each successive page building upon previous ones, and all pages adding up to a reasonable (not overly data-laden) foray into the issues of concern to the group.

4. Go beyond a simple univariate treatment of information but not overly complicate the analytical and graphical treatments of data. The comparisons by grade level and sex (Exhibits 6b and c) and bivariate relationships in Exhibit 6d are illustrative.

5. Bring to bear a variety of information from a variety of sources (e.g., student survey, extant information system, and district records).

We must emphasize, again, that these reports are designed primarily as an "experiment" to test the feasibility of various data displays; as such, they only scratch the surface of what can be done analytically with the data in a comprehensive information system. In the coming year, we plan to more fully explore the analytical capabilities of the system, especially as the system will be augmented with another round of student survey data (for longitudinal comparisons) and possibly teacher and parent survey data as well.

EMERGING ISSUES

We have already alluded to (and in some cases, briefly described) some issues that seem to continually appear as teachers, administrators, and outside collaborators attempt to work together on designing, develop-

ing and using an information system responsive to needs at the building level. We will now briefly review and elaborate these issues.

Clinical Versus Social Uses of Information

Often in the deliberations over which piece of student survey data might be useful, particularly for class and school level reports, considerable differences of opinion seemed to occur between members of the work group. Often, the generic form of the debate seemed to take the forms of "I don't see how I could use this piece of information in teaching a student" versus "I think these data could help us (me) make planning decisions about the school (my class)." In effect, the disagreement was more a matter of differing orientations than it was of informational content.

CSE staff intervened a number of times in these discussions attempting to clarify the individual, diagnostic, clinical orientation, on the one hand, and the organizational, planning, social perspective, on the other. These interventions seemed to help clarify and facilitate the discussion and also permitted the observation that some teachers simply placed less value on the social use of information. Nevertheless, teachers could more easily sort out the substantive aspects of inclusion-exclusion decisions; they could, for example, agree that an item like "How much do you like mathematics?" had less diagnostic use at the individual level, yet could be aggregated at the classroom level to provide information helping the teacher deal with climate and learning environment issues.

The clinical-social distinction is not a new one in work relating to assessing organizations, but its manifestation in the school setting as people attempt to design and make sense out of comprehensive

information systems deserves further study. Clearly, the issue has a direct bearing upon statistical and psychometric concerns arising out of multilevel analysis. Also clear, are the interacting effects of the socio-cultural context and circumstances of schooling and teaching that may predispose teachers to "think clinically"--we are referring here to features such as the hierarchical organization of schooling, traditional roles of administrators vis a vis teachers, and the ways teachers have for developing and organizing their "working knowledge."

The clinical-social issue both cuts across the issues that follow and discussing it in more depth is beyond the scope of this report. As more data are accumulated in the 1985 project year, we expect more insights regarding this phenomenon. It will thus serve as the major focus for a 1985 project deliverable.

Teachers As Researchers/Data Analysts

Over the course of our meetings with the work group, teachers and administrators behaved more and more like trained researchers, asking more questions of the data and requiring more sophisticated treatments of the data (e.g., bivariate and multivariate analyses). Certainly part of this may be due to our presence and our deliberate suggestions regarding the ways in which data can be explored (see again Appendix B). However, these enlightened approaches to data exploration were clearly evident in the work group from the beginning and were evidenced by several teachers never even involved in the work group.

Our point here is to cast some doubt on the often heard lament that teachers don't really care about having more and better information and, even if they did, wouldn't know what to do with it. The fact of the matter may be less an issue of caring and more one of professional

opportunity. The current circumstances of teaching and administrating simply do not permit the kind of time necessary for informed dialog, decision-making, action-taking, and evaluation that characterizes a dynamic and renewing organization (Goodlad, 1975).

As the age of information explodes upon us, along with the technology to handle it, the pressures for organizational change become impossible to ignore. Many organizations in the private sector have been both receptive and responsive to, for example, the increased role of workers as informed decision-makers (Peters and Waterman, 1982). Our belief is that schools (and their districts) will need to change in similar and perhaps even more profound ways to allow administrators and teachers to participate more fully as professionals and engage in inquiry processes that can be significantly advanced by the kind information systems we have been discussing. (See 1982 Deliverable by Sirotnik and Oakes for a more in-depth discussion of the inquiry and school renewal model being suggested here.)

The Power of Numbers

When teachers are ordinarily presented with quantitative data, it is usually of the prescriptive variety and often for the purpose of accountability--standardized test scores are the prime example. Even in ordinary, everyday life we are bombarded with numbers that seem to suggest responding rather than reflecting--Dow Jones averages, inflation rates, weather reports, etc. It is not surprising to see school staff, therefore, reacting to survey data as if they contain the prescription for educational change instead of providing just one more heuristic for helping to understand the possible directions for change.

The typical way in which we observed this phenomenon is illustrated in the following exchange (paraphrased here) by members of our work group:

> Person A: If we allow these data to make decisions for us, then we must be concerned with the validity of the student responses.
>
> Person B: I give tests--I have a vested interest, as a teacher, in student assessment. Would I reconsider this method of evaluation just because kids say they don't like tests? Maybe so.
>
> Person A: I think learning to read is more important than any subject matter per se. So I assign reading both for content and skill development. If the survey indicated students don't like textbooks, should I not bother to teach them to read?
>
> Person C: It seems that the dilemma here is more a question of perceptions regarding what the data mean.

Person C, of course, hit the nail on the head. We added our own "two cents" to this discussion by noting that data do not make decisions--people do. Thus, information is best used not as a blueprint for action but as a catalyst for, and adjunct to, staff discussion and decision-making.

These kinds of discussions occurred a number of times throughout the course of the project, and it seemed to be of some considerable relief to the work group to know that it's OK to be proactive rather than reactive in regard to information and the use of information.

The Quest for Simplicity in Complexity

Although issues of content were always of importance to the work group as they deliberated over what and what not to include in the several reports, of equal (or perhaps even more) importance was the group's wish for simple, short, uncluttered, non-numeric displays of data. The prime example was the bottom line for student- and class-at-

a-glance reports--whatever they contained, they needed to fit on single 8 1/2 x 11 pages.

Not withstanding the validity of the group's concerns, schooling and the assessment of it is extraordinarily complex; there are multiple data sources, multiple domains of potential data, multiple levels at which information is used, multiple methods for obtaining data, and multiple analytic and reporting techniques. Yet given this complexity, we still seek simple representations of it.

We do not mean to suggest that this is an unworthy goal or that a complex problem necessitates a complex solution. In fact, as a society, we will probably face a growing need to provide a more "human edge" to the products of an increasingly technological world. (See Naisbitt's, 1982, analysis of the "high tech/high touch" megatrend as we move from an industrial to an information society.) Our point here is simply to note the tension between the legitimate requirement for simplicity in representing the information pertaining to a complex process (schooling) and setting (schools).

The Misuse of Information

The potential for misusing information--violating confidentiality, creating self-fulfilling prophecies regarding individuals (e.g., students, based on CTBS "ability" scores), misinterpretations, overinterpretations, and inappropriate applications of data, and so forth--has always been a feature of districts and schools. The presence of a comprehensive and accessible information system merely exacerbates the problem.

Nonetheless, it is still a serious problem and we have been sensitive to it in the general context of developing and using computerized information systems (Sirotnik, 1984). The teachers in the work group

(as well as several others in the faculty at large) have also been worried about the abuse of people through the misuse of data, and they have voiced their concern several times over the course of this project. Interestingly, this concern is provoked by the presence of information like self-concept, homework compliance, and educational expectations. Yet data such as the ever-present standardized test scores have always had as much (or more) potential (and actual) misuse--for example, the stigmatizing and disenfranchising from academic excellence of many students in low tracked classes (Oakes, in press).

But we find no comfort in the old notion that it is people, not the information per se, that carry the potential for abuse. It may well be that the costs due to the misuse of information may well outweigh the advantages of individually based reports like students-at-a-glance. But then need all such reports be automatically generated for all teachers? Perhaps only those teachers requiring certain kinds of data for reasonable purposes could request and receive immediately reports tailored for their needs. We plan to study the feasibility of this alternative (including technological implications) in the coming year.

Needless to say, this whole issue is bound to become messier before it becomes clearer. We can only remain sensitive to the misuse of data within the context of the constructive use of information systems.

The Educative Function in Collaboration

We have, we believe, been appropriately self-conscious regarding our role in this project. Our presence in the work group has not been exactly unobtrusive, nor has it been unduly interventionist. We have tried to walk that fine line separating the role of observer-researcher from active participant-director.

Throughout the discussion in this report, we have tried to make clear how we may have shaped the course of events in what we hope was an educative, more than a directive, role. This observation is not meant in any way to be a condescending statement by university-based educators bringing their words of wisdom down to the less informed levels of school practitioners. The fact of the matter is that the educative function in collaborative research is quite reciprocal--we have been educated often during this project by teachers and administrators concerning the realities of schooling and the meaning and use of information in the context of practice.

What all this suggests to us is the need for someone or group to serve in an educative and collaborative role regarding issues (like those emerging here) pertaining to the development and use of information systems. Given the trends toward increased use of technology, moves toward decentralization, and needs for reconfiguration of resources, it is not hard to imagine an FTE position at the building level explicitly for R&D-type activities based upon a comprehensive information system.

FUTURE DIRECTIONS

As stated in the proposal for FY 1985, this final project year will be devoted to achieving closure on the basic problems raised and studied in this project. The deliverables this year represent, essentially, beginning versions of the final reports. All these problems--organizational and process issues in developing and using information systems, expanding the concept of information to include more than just achievement test data, developing a feasible hardware-software interface that meets the information needs at the building level, and analyzing and displaying

information in clear and useful ways--are interconnected and will be enlightened by the activities planned for FY 1985 (see proposal).

Of particular relevance to this report will be the data gained by studying how administrators and staff respond to the several reports that will be produced and distributed by the district. Other data collection, analysis, and reporting activities are also being planned for follow-up student surveying and teacher and parent surveys. As these activities proceed, not only will data be obtained regarding the actual use, misuse, and/or nonuse of information systems by school staff, but also, additional insight into the clinical-social distinction raised above is anticipated. This issue, which we believe is embedded in many of the other emerging issues noted, will form the basis of a final report for FY 1985 as well.

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A P P E N D I X A

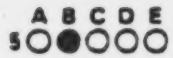
Student Survey and
Results of Survey Conducted
in May 1984 (N = 1461)

High School Student Survey

The survey you are about to complete will ask you questions about yourself and about your school. This is not a test. There are no right or wrong answers. The survey will give you an opportunity to express how you feel about what happens in your classes and around school. That is why it is important to answer the questions as truthfully and as carefully as possible.

DO NOT WRITE ON THESE PAGES

MARK YOUR ANSWERS ON THE ANSWER SHEET PROVIDED. You will notice that answers go from A to E or from F to K. This does not matter. Simply choose the one answer that best fits your opinion for each question. MARK ONLY ONE LETTER ON THE ANSWER SHEET FOR EACH QUESTION. For example, if you chose answer B for question number 5, you would mark the answer sheet like this:



Or, if you chose answer J for question number 6, you would mark the answer sheet like this:

Remember, mark only one letter on the answer sheet for each question. If there are any words or questions you don't understand, please raise your hand and ask for help.

DO NOT BEGIN UNTIL YOU RECEIVE MORE INSTRUCTIONS

This question will be answered differently than the others. You will use the blue box at the top of the answer sheet. Read the list of Career Magnet Schools below.

1. Physical Science and Technology
2. International Relations & Political Science
3. Business
4. Industry
5. Performing, Visual and Fine Arts
6. Mental, Physical & Biological Sciences
7. Liberal Arts
8. Entry and Essentials
9. Don't Know

Now, using the last column of the blue box (to the far right), mark the number on the answer sheet that matches your career magnet school.

Starting with number 1 on the survey, the rest of the questions will be answered in the white area of the answer sheet. Remember, do not mark on the survey sheets themselves. Mark one answer for each question on the answer sheet.

High Student Survey Results
May 1984

Questions About Yourself

1. Sex:
49 A. Male
51 B. Female

2. Besides English, what other languages are spoken in your home:
77 F. None
10 G. Spanish
1 H. Vietnamese
1 J. Chinese
10 K. Other

3. Living situation:
78 A. With two parents (includes stepparents)
15 B. With one parent only (mother or father only)
3 C. Guardian(s)/foster parents
1 D. Alone or with friends
3 E. Other

4. About how many hours a week do you usually spend working on a job during the school year?
50 F. None. I am not employed during the school year.
14 G. About 10 hours or less
18 H. About 15 - 20 hours
13 J. About 20 - 30 hours
6

5. How many hours do you watch television each day?
14 A. None
38 B. About 1 hour
36 C. About 2 - 3 hours
8 D. About 4 - 5 hours
4 E. More than 5 hours

Choose the ONE answer that best completes each of the following sentences.

6. If I could do anything I want, I would like to:

3 F. Quit school as soon as possible.
19 G. Finish high school.
22 H. Go to trade/technical school or junior college.
50 J. Go to a 4-year college or university.
6 K. Don't know.

7. I think my parents would like me to:

1 A. Quit school as soon as possible.
19 B. Finish high school.
15 C. Go to trade/technical school or junior college.
62 D. Go to a 4-year college or university.
4 E. Don't know.

DO NOT WRITE ON THIS PAGE

8. Actually, I will probably:

1 F. Quit school as soon as possible.
23 G. Finish high school.
30 H. Go to trade/technical school or junior college.
40 J. Go to a 4-year college or university.
6 K. Don't know.

9. How comfortable do you feel about choosing a future career goal at this point in your life?
10 A. Very Uncomfortable
13 B. Uncomfortable
34 C. Neither Uncomfortable or Comfortable
31 D. Comfortable
12 E. Very Comfortable

The following sentences describe some of the ways in which people might think about themselves.

Read each of the following sentences carefully and mark the letter on the answer sheet that tells how much it is like you.

Look at the following practice sentence and mark the letter on the answer sheet that tells how much you agree or disagree with the sentence.

PRACTICE	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
I am good at art	A.	B.	C.	D.	E.

If you Choose "Strongly Agree," you're saying that you are very good at art. If you choose "Mildly Agree," you're saying that you are OK at art. If you choose "Mildly Disagree," you're saying that you are not too good at art. If you choose "Strongly Disagree," you're saying that you are very poor at art.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
10. I'm popular with kids my own age.	21	52	20	5	1
11. Kids usually follow my ideas.	12	47	29	9	3
12. Most people are better liked than I am.	6	13	32	29	19
13. It is hard for me to make friends.	4	11	5	27	52
14. I have no real friends.	3	4	4	10	79
15. I'm not doing as well as I'd like to in school.	36	32	5	14	12
16. I am a good reader.	39	37	11	8	5
17. I'm proud of my schoolwork.	16	37	17	19	11
18. I'm good at math.	22	33	14	17	14
19. I'm doing the best work that I can.	14	28	13	28	16
20. I am able to do schoolwork at least as well as other students.	46	32	14	6	2

DO NOT WRITE ON THIS PAGE

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
21. My grades are not good enough.	27	32	8	18	15
22. I'm always making mistakes in my schoolwork.	5	16	16	40	23
23. I am a good writer.	21	38	21	14	7

Questions About Your School Life

How much do the following words describe most of the teachers at this school?

	Very Much	Pretty Much	Some-what	Only A Little Bit	Not at All
24. Friendly	11	51	27	8	3
25. Helpful	12	48	28	9	3
26. Have high hopes for us	12	28	36	18	7
27. Talk to us	18	39	27	12	3
28. Let us talk to them	17	37	29	13	4
29. Care about us	9	31	36	16	7
30. Do a good job	12	49	26	8	4

How much do the following words describe how you feel about most of the students at this school?

	Very Much	Pretty Much	Some-what	Only A Little Bit	Not at All
31. Friendly	13	51	28	7	2
32. Helpful	7	32	40	17	4
33. Have high hopes	8	28	43	16	4
34. Smart	7	41	41	9	2
35. Talk to each other	48	36	12	3	1
36. Care about each other	17	41	29	10	3
37. Competitive	41	32	20	5	2

DO NOT WRITE ON THIS PAGE

38. The most popular students in this school are: (Choose only one answer)

48 F. Athletes

3 G. Smart students

9 H. Members of student government

35 J. Good-looking students

3 K. Wealthy students

Indicate whether or not you participate in the following activities at school. (Answer yes or no for each of the following).

	Yes	No
39. I participate in sports teams/drill team/flags/cheerleading.	37	60
40. I participate in student government.	8	88
41. I participate in music, band, drama, or other arts.	17	79
42. I participate in honor society.	19	77
43. I participate in school clubs/community service activities.	26	71

Below is a list of things which may be problems at this school. How much do you think each is a problem at this school?

	Not a Problem	Minor Problem	Major Problem
44. Student misbehavior (fighting, stealing, gangs, truancy, etc.)	17	62	19
45. Poor courses or not enough different subjects offered	40	40	17
46. Prejudice/Racial conflict	66	26	7
47. Drugs	16	49	34
48. Alcohol	18	45	36
49. Poor teachers or teaching	33	48	17
50. School too large/classes overcrowded	59	31	9
51. Teachers don't discipline students.	57	34	8
52. Poor or not enough buildings, equipment, or materials	41	38	19
53. The principal and other people in the office who run the school	32	34	32
54. Poor student attitudes (poor school spirit, don't want to learn)	23	49	26
55. Too many rules and regulations	21	35	43
56. How the school is organized (class schedules, not enough time for lunch, passing periods, etc.)	12	28	58

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Issues and Problems:

Read each one of the following sentences carefully and choose the letter that tells how much you agree or disagree with what it says. CHOOSE ONLY ONE LETTER for each sentence. Please raise your hand if you have any questions.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
57. What I'm learning in school is useful for what I will need to know NOW.	21	40	16	16	7
58. What I'm learning in school will be useful for what I will need to know LATER in life.	34	33	15	10	8
59. I think students of different races or colors should go to school together.	67	11	7	3	10
60. Girls get a better education than boys at this school.	5	6	23	11	55
61. There are places at this school where I don't go because I'm afraid of other students.	6	8	6	10	68
62. Boys get a better education than girls at this school.	3	3	23	12	59
63. I do not have enough time to do my school work.	15	28	13	26	18
64. High school students should have job experience as part of their school program.	32	27	23	11	7
65. Many students at this school don't care about learning.	22	34	24	15	4
66. Average students don't get enough attention at this school.	17	29	29	17	6
67. Some of the things teachers want me to learn are just too hard.	12	21	17	29	20
68. Too many students are allowed to graduate from this school without learning very much.	19	22	23	17	16
69. If I had my choice, I would go to a different school.	11	8	21	18	42
70. There are things I want to learn about that this school doesn't teach.	29	24	18	15	13
71. It's not safe to walk to and from school alone.	5	8	11	15	60

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	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
72. I have trouble reading the books and other materials in my classes.	7	12	8	23	52
73. The grades or marks I get help me to learn better.	17	29	25	17	11
74. I like school.	19	41	14	12	12
75. The grades or marks I get in class have nothing to do with what I really know.	21	25	19	21	14
76. I have to learn things without knowing why.	18	27	21	19	13
77. Parents should have a say in what is taught at this school.	17	27	23	16	16
78. It is easy for me to get help from a counselor when planning my school program.	39	28	10	11	9
79. We are not given enough freedom in choosing our classes.	27	21	11	23	18
80. We are not given enough freedom in choosing our teachers.	49	19	8	12	10
81. If I have a personal problem, it would be easy for me to get help from a counselor.	19	17	26	14	23
82. If you don't want to go to college, this school doesn't think you're very important.	8	16	31	21	22
83. Students should have a say in what is taught at this school.	37	32	14	9	6
84. A person is foolish to keep going to school if he/she can get a job.	4	4	9	16	65
85. If I need help planning for a career, it would be easy for me to get help from a counselor.	35	26	18	11	8
86. I like the way this school looks.	14	42	18	16	9
87. It is easy to get books from the school library.	40	36	11	6	4
88. Things in the school library are useful to me.	32	41	15	7	4
89. Materials in the Career Guidance Center (CGC) are useful to me.	29	27	29	8	5

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Questions About Teaching, Learning & Classroom Work

All schools teach pretty much the same things, but they may think some things are more important than others. . .

90. Which ONE of these does this school think is the most important thing for students? (Choose only one)

7 F. To work well with other people
65 G. To learn the basic skills in reading, writing, arithmetic, and other subjects
13 H. To become a better person
10 J. To get a good job

91. If you had to choose only the ONE most important thing for you, which would it be? (Choose only one)

14 A. To work well with other people
24 B. To learn the basic skills in reading, writing, arithmetic, and other subjects
32 C. To become a better person
26 D. To get a good job

In general, how do you like the following subjects?

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
92. English	23	45	10	14	6
93. Mathematics	25	34	10	14	16
94. Social studies (history, geography, government, etc.)	20	31	13	16	16
95. Science	23	30	16	14	14
96. Computer Education	28	27	33	6	5
97. The Arts (art, crafts, music, drama, dance, creative writing, film-making, photography)	40	26	20	8	5
98. Foreign Language	13	26	24	16	21
99. Vocational/Career Education (shop, business education, home economics, etc.)	24	30	29	8	5
100. Physical Education	43	28	11	8	8

DO NOT WRITE ON THIS PAGE

101. How many hours of homework do you have each day?

14 A. None
40 B. About 1 hour
35 C. About 2 - 3 hours
5 D. About 4 - 5 hours
3 E. More than 5 hours

102. In general, how often do you do your homework?

21 F. All of the time
41 G. Most of the time
21 H. Sometimes
11 J. Seldom
3 K. Never

103. How soon do teachers usually return your work?

12 A. the next day
29 B. 2 days later
24 C. 3 days later
10 D. 4 days later
22 E. 5 days later or more

104. When you make mistakes in your work, how often do teachers tell you how to do it correctly?

10 F. All of the time
35 G. Most of the time
28 H. Only sometimes
18 J. Seldom
6 K. Never

105. How often do your parents or other family members help you with your school work?

7 A. All of the time
16 B. Most of the time
25 C. Only sometimes
28 D. Seldom
21 E. Never

Listed below are four ways students can work in a classroom. Choose the letter on the answer sheet that tells how much you like or would like to work in each way, even if you don't do so now.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
106. Alone by myself	20	35	11	20	12
107. With the whole class	21	41	14	15	7
108. With a small group of students, who know as much as I do	39	35	12	6	5
109. With a small group of students, some who know less, some who know as much, and some who know more than I do	31	31	17	11	8

DO NOT WRITE ON THIS PAGE

Listed below are some things that might be used in a class. Choose the letter on the answer sheet that tells how much you like or would like to use each thing, even if you don't use it in a classroom.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
110. Textbooks	11	38	14	22	12
111. Other books	10	39	26	15	6
112. Work sheets	14	40	15	17	10
113. Films, filmstrips, or slides	43	35	9	6	3
114. Games or simulations	39	29	16	7	4
115. Newspapers or magazines	18	37	23	12	5
116. Tape recordings or records	21	28	22	16	8
117. Television/video	54	31	6	3	1
118. Calculators	38	34	15	5	3
119. Globes, maps, and charts	20	34	20	13	9
120. Animals and plants	35	33	17	6	4
121. Lab equipment and materials	37	30	14	9	5
122. Computers	48	25	14	3	5

Listed below are some things that you might do in a class. Choose the letter on the answer sheet that tells how much you like or would like to do each thing, even if you don't do it in class.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
123. Listen to the teacher	17	46	13	13	6
124. Go on field trips	60	23	8	3	2
125. Do research and write reports, stories, or poems	10	24	13	22	24
126. Listen to student reports	10	26	20	22	17
127. Listen to speakers who come to class	30	40	11	9	5
128. Have class discussions	40	32	11	7	5
129. Build or draw things	29	28	18	12	8
130. Do problems or write answers to questions	11	31	20	20	13

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	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
131. Take tests or quizzes	5	25	15	27	23
132. Make films or recordings	24	23	29	11	8
133. Act things out	19	22	22	16	16
134. Read for fun or interest	38	31	13	8	5
135. Read for information	17	36	17	17	8
136. Interview people	17	24	24	17	12
137. Do projects or experiments that are already planned	20	37	17	13	7
138. Do projects or experiments that I plan	24	30	21	12	8

Please indicate how important each of the following items was in your choice of classes here at Royal High School.

	Very Important	Important	Not Sure	Not Important	Very Unimportant
139. Taking classes from teachers I like	58	23	6	6	2
140. Being in the same classes as my friends	32	33	11	15	3
141. Completing graduation requirements	74	12	3	3	2
142. Learning skills for a future job	60	24	6	2	2
143. Taking classes that will help me be a better person	46	31	10	4	2
144. Being challenged by taking hard subjects	22	33	19	13	6
145. Taking classes that will prepare me for the future	55	26	8	2	2
146. Getting a wide variety of classes	34	32	17	7	2
147. Preparing for college	48	24	13	5	3
148. Taking classes requiring little work	10	18	29	31	15
149. Avoiding subjects I don't like	22	24	22	17	7
150. Taking classes that are popular	9	17	28	27	12
151. Taking classes my parent(s) consider important	9	28	22	21	13
152. Taking classes where I can get good grades	22	30	18	17	5

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Questions About the Learning Resource Center (LRC)

153. Have you heard of the Learning Resource Center?
79 A. yes
8 B. no

154. If yes, how often have you gone with your classes to the Learning Resource Center?
22 F. Never
52 G. Only once or twice
10 H. About once or twice a month
3 J. About once or twice a week
2 K. Almost every day

155. How often have you gone to the Learning Resource Center by yourself?
50 A. Never
26 B. Only once or twice
8 C. About once or twice a month
3 D. About once or twice a week
3 E. Almost every day

If you have ever used the Learning Resource Center, have you used any of these services? (Answer yes or no for each of the following).

	Yes	No
156. Diagnostic testing for reading and math problems	8	72
157. Entry testing for proper class placement	8	72
158. Assistance with assignments from classroom teacher	16	64
159. Work on tasks assigned by the Learning Resource Center	10	70
160. After school seminars	8	71
161. Study hall	17	64
162. SAT preparation	10	70
163. Proficiency test preparation	11	70
164. Use the computer	18	62
165. Study skills	19	61
166. Language laboratory	11	69
167. Assistance in researching or typing papers	12	68
168. Use the typewriter	8	72
169. Receive individual tutoring	6	73
170. Develop library/research skills	9	71
171. Develop reading skills	9	70
172. Develop writing skills	10	69
173. Develop math skills	6	73
174. Develop listening skills	12	68
175. Develop test taking skills	14	65

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176. Have you received credit for Writing I through the Learning Resource Center?
4 F. yes
76 G. no

177. Have you received credit for Developmental Reading through the Learning Resource Center?
4 A. yes
76 B. no

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
178. The Learning Resource Center is helping students at Royal.	16	32	32	4	3
179. Most students know about the resources available in the Learning Resource Center.	9	23	23	21	9
180. I have been helped by the services of the Learning Resource Center.	9	18	20	18	20
181. I am comfortable about using the services of the Learning Resource Center.	11	18	35	11	11
182. My work in the Learning Resource Center has helped me in my courses.	7	12	32	16	18
183. My work in the Learning Resource Center has made me feel more secure about my ability to do the work assigned by my teachers.	6	11	32	16	19

Questions About the Career Magnet School

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
184. I understand what the Career Magnet School program is trying to do.	20	26	18	11	13
185. I would like more information about the Career Magnet Schools.	28	24	20	6	9

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A P P E N D I X B

Outline of Two-Day
Work Group Retreat On
Using and Reporting Information

Some Guidelines for June 18-19
High School/UCLA Workshop

Thinking About the Use of Information for Different Purposes

- Different contexts (or levels):

  Individual, e.g., student test scores, survey responses, etc. used diagnostically on a per student basis.

  Class, e.g., student test scores, survey responses, etc. aggregated (e.g., averaged, tabled, etc.) for all students in a particular class and used for teacher-class planning.

  Department, e.g., student data aggregated for a particular department (e.g., math) and used for teacher/administrator planning.

  School, e.g., data aggregated for entire school (perhaps organized by grade, sex or other relevant attribute depending on purpose) and used for administrative and teacher planning.

- Let's take a couple of examples:

  Function of schooling questions
  (#90 and #91)

  Educational aspiration questions
  (#6 - 8)

  Instructional grouping questions
  (#106 - 109)

- Some different ways of looking at survey questions:

  ---One-by-one
  ---Contrasting one with another
  ---Crosstabulating (detailing the relationship of) one with another

- Small group brainstorming:

  Think up several examples using survey data (or envisioned analyses of these data) of how information could be used for:

  ---Individual level instruction
  ---Classroom level planning
  ---School level planning

- Total group brainstorming:

  In particular, in what ways can we increase the potential relevency of single items of information by interrelating them with other important information? Specific examples are needed.

- Reporting formats:

  How would you like to see the results reported back?
  ---Small work groups take a shot at several examples.

  Are there any general "rules" that emerge?
  ---Total group discussion

A P P E N D I X C

Description of District Information System File Structure and Contents

The district's information system (implemented on a Burroughs Model 6800 mainframe computer with remote terminal access at district and school levels) is made up of a number of files that can be linked together by identification pointers (using COBOL) for purposes of updating, sorting, merging and selecting information in analysis and reporting operations.

Of essential importance to this project are these five student files compiled and maintained by the district:

CTBS Test Score File: cumulative record of all student test score results for all quantitative and verbal scales.

Activity Record File: Miscellaneous information such as students AFDC, GATE, bilingual, and special education statuses; permits (smoking, auto, off-campus); extracurricular activities; and contacts with health office, principal, counselors.

Master Record File: Basic linking file consisting of student's grade, sex, address, phone, other personal and family data (e.g, mother/father occupation; emergency contacts; health data; doctor name); FES, LES, NES, MGM codes; ethnicity codes; school entry/leaving date(s); etc.

Attendance File: Complete record of daily attendance including full days and partial days absent.

Cumulative Grade File: Total number of letter grades of each type (A-F), current GPA, total credits class rank, class size, expected graduation date.

Using these (and other) files, basic information on students such as class schedules, attendance data, test data, course grades, career and educational goal information, records of academic/social referrals and conferences, and miscellaneous extracurricular activities and activity permits can be stored, accessed, and used for various reporting purposes.

Using terminals (linked to the main frame) at the building level, administrators, counselors, and other trained staff can access (and print) data displays containing the following information:

1. Cross-referenced information: more than 175 variables, student indicators, and activities can be cross-related by the computer.
2. Current test data and history of test data.
3. Special education IEP data.
4. Attendance and re-admits.
5. Addresses and grids of residence.
6. Graduation requirements.
7. Permanent record card.
8. The four-year educational plan.
9. Student master record.
10. Activity-referral form.
11. Search class by the section number.
12. Course requests.
13. Student locator--look up and update.
14. Master schedule and section number.
15. Student continuum data (CMI test information).
16. Proficiency test results.
17. Career Magnet Schools: paths, programs and course plan.
18. Budget data.
19. School-wide academic and activity calendars.

A more complete description of the district's information system as well as a general discussion pertaining to hardware-software issues in using such systems at district and building levels is contained in the 1984 Deliverable by Ender.

APPENDIX D

Annotated Student- and Class-At-A-Glance Report Formats

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STUDENTS AT-A-GLANCE

SECTION:
TEACHER:

PREPARED ON 12 SEP 84

STUDENT NUMBER	STUDENT NAME	GRADE	CM SCHOOL	ED EXPECT	DAYS ABS	CTBS READ	CTBS LANG	CTBS MATH	GPA	ACAD SC	HOMEWORK	JOB	ACTIVITY	LIKE SCH
49043	ADAMS, WILLIAM B	12	.	4Y	.	.	.	.	1.1	H	+	P	3	+
49052	ANDERSON, JOHN L	.	.	HS	.	.	.	.	.	M	+	P	0	+
41950	BARRETT, ANDREW P	12	6	HS	57	33	14	3	1.9	M	-	H	0	-
49274	BARRY, LISA S	12	3	4Y	35	82	84	83	2.6	M	0	H	2	+
42468	BAYER, LINDA C	12	3	2Y	17	34	54	3	1.8	H	+	H	2	+
49341	CANCU, JULIE M	12	3	2Y	18	49	67	0	2.7	H	+	N	0	+
43686	CAMPBELL, BRIAN R	12	4	2Y	11	80	88	80	1.6	M	0	N	0	0
49048	CARACCIOLO, MELAN	12	6	2Y	23	68	72	68	2.9	M	+	N	4	+
42771	CARRILLO, D STEVE	12	6	HS	30	.	.	3	1.5	H	0	N	0	-
49050	EVANS, MICHELLE A	11	6	?	13	83	86	68	3.0	M	0	P	1	-
43177	FEENEY, TIMOTHY P	12	6	.	55	36	26	35	1.4	.	.	.	.	.
44197	FLETCHER, DAWN MI	12	6	4Y	27	19	7	7	2.1	M	+	P	3	+
49286	GALLEGLY, SHAWN M	12	1	4Y	7	66	84	95	3.8	H	+	P	3	+
49288	GILGENBERG, MARY	12	2	4Y	8	87	94	83	3.6	H	+	N	3	+
41828	GROCE, SONIA R	12	6	2Y	37	10	12	2	2.4	M	0	P	0	+
49291	HARSH, TAMARA L	12	7	2Y	11	45	62	40	2.6	M	-	P	1	+
49069	HILLENBRAND, STEV	12	4	2Y	31	41	20	10	2.2	M	+	P	0	+
49294	HUBBARD, W FRANK	12	4	HS	35	.	.	.	2.1	M	+	N	0	-
49295	HULL, ERIC J	12	1	2Y	10	63	64	64	1.7	M	-	P	1	0
49301	KOVACH, ROBERT S	12	1	4Y	6	86	96	99	4.1	H	+	P	2	+
49303	LARSEN, TODD M	12	6	2Y	35	62	40	83	2.4	M	+	P	2	+
49306	LUIZ, DARREN K	12	4	2Y	17	1	3	.	2.5	M	-	H	0	-
49167	MAC NEAL, CHERYL	12	5	2Y	27	61	8	32	2.5	M	0	H	0	+
48395	MARSTAS, PATRICK	.	3	.	43	50	35	35	.	.	.	.	.	.
49168	MICHIELSEN, PIETE	12	4	4Y	10	83	77	92	3.2	H	+	N	3	+
49309	MILLER, PAUL A	12	6	4Y	35	80	70	60	2.8	M	+	N	2	+
49172	O DONNELL, THERES	12	3	2Y	46	23	30	28	1.6	M	+	N	0	0
43336	PRESTA, DAVID WAY	12	2	2Y	32	78	50	3	2.9	M	+	N	0	-
49129	RUSSELL, DANIEL R	12	2	2Y	30	16	28	45	1.6	M	-	N	1	-
42520	SALAS, JO ANN G	12	6	4Y	47	.	.	.	2.1	M	+	P	0	0
42793	SCHNEIDER, JUSTIN	12	6	4Y	30	99	74	43	2.5	M	+	P	0	+
43660	SHAW, KEVIN M	12	5	HS	45	.	.	.	.8	M	-	P	.	0
43179	SMITH, LOYAL DAVI	12	8	.	118	8	0	37	1.1	.	.	P	0	.
49323	SORVINO, GINA MAR	12	5	2Y	27	47	49	31	2.1	M	+	P	0	+
49109	SPELLMAN, DUANE A	12	4	HS	10	61	74	26	1.9	M	-	H	0	+
41481	SWABB, JONATHAN D	12	5	4Y	15	42	17	23	1.3	H	+	N	3	-
44147	SYNODIS, ALLISON	12	6	2Y	56	54	73	40	2.9	H	+	P	2	+
49262	TIGNAC, LOUIS LEO	12	1	2Y	31	92	52	95	3.1	H	+	P	0	-
49329	VIEZI, GINA	12	8	2Y	27	63	50	60	3.0	M	+	H	1	-
43580	WOOD, JOSEPH A	12	4	2Y	25	12	12	23	2.2	M	-	P	1	-

. = MISSING

CM SCHOOL: CAREER MAGNET SCHOOL. ← Reported on cover sheet of student survey
1=PHYSICAL SCIENCE AND TECHNOLOGY
2=INTERNATIONAL RELATIONS & POLITICAL SCIENCE
3=BUSINESS 4=INDUSTRY 5=PERFORMING VISUAL AND FINE ARTS
6=MENTAL, PHYSICAL & BIOLOGICAL SCIENCES 7=LIBERAL ARTS
8=ENTRY AND ESSENTIALS 9=DONT KNOW

ED EXPECT: EDUCATIONAL EXPECTATION. ← survey question #8
CU=QUIT HIGH SCHOOL HS=FINISH HIGH SCHOOL
2Y=GO TO TRADE/TECHNIC SCHOOL OR JUNIOR COLLEGE
4Y=GO TO 4-YEAR UNIVERSITY ?=DONT KNOW

DAYS ABS: NUMBER OF FULL DAYS ABSENT. ← District files

CTBS TEST RESULTS ARE REPORTED IN PERCENTILE RANK. ← District files

ACAD SC: ACADEMIC SELF CONCEPT. H=HIGH M=MEDIUM L=LOW ← Survey questions #15-23 (Based on total score)

HOMEWORK: +=ALL/MOST OF THE TIME 0=SOMETIME -=SELDOM/NEVER ← Survey question #102

JOB: F=FULLTIME(30+) H=HALFTIME(20-30) P=PARTTIME(10-20) N=NONE ← Survey question #4

ACTIVITY: NUMBER OF EXTRACURRICULAR ACTIVITIES(1-5). ← Survey questions #39-43

LIKE SCH: LIKE OF SCHOOL. +=LIKE 0=NOT SURE -=DISLIKE ← Survey question #74

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CLASS AT-A-GLANCE

FALL 84

SECTION NO: XXXX
NO. ENROLLED STUDENTS: 35
NO. STUDENTS TAKING SURVEY: 35

← District files

INSTRUCTIONAL GROUPING PREFERENCES

← Survey questions #106-109

ALONE	XXXXXXXXXXXXXXXXXXX--**********
WHOLE CLASS	XXXXXXXXXXXXXXXXX------**********
HOM SMALL CLASS	XXXXXXXXXXXXXXXXXXXXXX----*******
HET SMALL CLASS	XXXXXXXXXXXXXXXXXXXXX---**********

XXX LIKE --- UNDECIDED *** DISLIKE

LIKING OF MATHEMATICS

← Survey questions #92-100

LIKE VERY MUCH	
LIKE SOME	**************************
UNDECIDED	**********************
DISLIKE SOME	*
DISLIKE VERY MUCH	*

STUDENT ACTIVITY PREFERENCE

← Survey questions #123-138

LISTEN TEACHER	XXXXXXXXXXXXXXXXXX-------********
GO FIELD TRIPS	XXXXXXXXXXXXXXXXXXXXXXXXX---*****
DO RESEARCH ETC	XXXXXXXXX---************************
LISTEN STUDENT	XXXXXXXXXXXXX-------*********************
LISTEN SPEAKER	XXXXXXXXXXXXXXXXXXXXXXXXX--*******
CLASS DISCUSSION	XXXXXXXXXXXXXXXXXXXXXXXXX----*****
BUILD/DRAW THING	XXXXXXXXXXXXXXXX----------*********
DO PROBLEM/ANSWER	XXXXXXXXXXXXXX---------**********
TAKE TEST/QUIZ	XXXXXXXXXXX------*********************
MAKE FILM/RECORD	XXXXXXXXXXXXXX--------**********
ACT THINGS OUT	XXXXXXXXXXX--------**********
READ FOR FUN	XXXXXXXXXXXXXXXXX---------*******
READ FOR INFO	XXXXXXXXXXXXXXXXX------**********
INTERVIEW PEOPLE	XXXXXXXXXXXXX---------**********
DO PROJECT PLNED	XXXXXXXXXXXXXXXXX-------**********
DO PROJECT I PLN	XXXXXXXXXXXXXXX----------**********

XXX LIKE --- UNDECIDED *** DISLIKE